May 21, 2001

William G. Conway, Jr.
Wildcat Division of Forest River, Inc.
P.O. Box 124
Goshen, Indiana 46527

Re: Registered Construction and Operation Status,
039-13925-00554

Dear Mr. Conway:

The application from Forest River, Inc., received on February 19, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following recreational vehicle assembly plant, to be located at 57475 C.R. 3, Elkhart, Indiana, is classified as registered:

(a) Seven (7) natural gas space heaters each rated at 0.3 MMBtu/hr (each).

(b) Two (2) natural gas space heaters each rated at 0.1 MMBtu/hr (each).

(c) One (1) assembly line which includes surface and assembly coating operations.

(d) One (1) woodworking shop.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

    (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

    (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minute (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

2. Pursuant to 326 IAC 2-6 (Emission Reporting)
    This source is subject to 326 IAC 2-6 (Emission Reporting) and is located in Elkhart County, because it has the potential to emit more than ten (10) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement

as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

3. Pursuant to 326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the woodworking and surface coating operations shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For Forest River's woodworking operation, the process rate is 6,000 pounds (includes the weight of the vehicle) such that the PM emission rate is 8.57 pounds per hour.

$E = 4.10\ (3)^{0.67} = 4.10\ (2.09) = 8.57$

Note: The maximum potential PM emission rate is 0.741 pounds per hour. In order to maintain registration status, the total facility potential to emit must be less than 25 tons per year.

This is the first air approval registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source, which may increase the potential emissions of any criteria pollutant equal to or greater than 25 tons per, or any individual HAP equal to or greater than 10 tons per year, or any combination of HAPs equal to or greater than 25 tons per year or more, from equipment covered in this registration.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

ERG/RB

cc: File - Elkhart County
Elkhart County Health Department
Air Compliance - Paul Karkiewicz
Northern Regional Office
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3).

Company Name:	Wildcat Division of Forest River, Inc.
Address:	57475 C.R. 3
City:	Elkhart, Indiana 46517
Authorized individual:	William G. Conway, Jr.
Phone #:	(219) 534-6913
Registration #:	039-13925-00554

I hereby certify that the Wildcat Division of Forest River, Inc. is still in operation and is in compliance with the requirements of Registration 039-13925-00554.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: Forest River, Inc.
Source Location: 57475 C.R. 3, Elkhart, Indiana 46517
County: Elkhart
SIC Code: 3792
Operation Permit No.: 039-13925-00554
Permit Reviewer: ERG/RB

The Office of Air Quality (OAQ) has reviewed an application from Forest River, Inc. relating to the construction and operation of a recreational vehicle assembly plant.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

(a) Seven (7) natural gas space heaters rated at 0.3 MMBtu/hr (each).

(b) Two (2) natural gas space heaters rated at 0.1 MMBtu/hr (each).

(c) One (1) assembly line which includes surface and assembly coating operations.

(d) One (1) woodworking shop.

Existing Approvals

This is a new construction, there are no previous permits.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 19, 2001, with additional information received on February 20, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1-5).

Potential To Emit (of Source or Revision) Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	5.60
PM-10	5.60
SO_2	0.01
VOC	13.48
CO	0.85
NO_x	1.01

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) PM and VOC is greater than levels listed in 326 IAC 2-1.1-3(d)(1), therefore the source is subject to the provisions of 326 IAC 2-5.5.1.

(d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Maintenance
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Elkhart County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	2.45
PM10	2.37
SO_2	0.01
VOC	13.48
CO	0.85
NO_x	1.01

(a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and is located in Elkhart County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this recreational vehicle assembly plant will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

This source does not have potential VOC emissions equal to or greater than twenty five (25) tons per year. Therefore this source is not subject to the provisions of 326 IAC 8-1-6.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the woodworking and surface coating operations shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For Forest River's woodworking operation, the process rate is 6,000 pounds (includes the weight of the vehicle) such that the PM emission rate is 8.57 pounds per hour.

$E = 4.10\ (3)^{0.67} = 4.10\ (2.09) = 8.57$

Note: The maximum potential PM emission rate is 0.741 pounds per hour. In order to maintain registration status, the total facility potential to emit must be less than 25 tons per years.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

This rule applies to industrial categories with specific SIC Codes, including facilities whose first two digits are 37 and have been constructed after July 1991. The Forest River facility is characterized by the SIC Code 3792. Construction is pending and VOC emissions are anticipated to be 73.5 pounds per day, but none of the surface coating is applied to metal products. Therefore 326 IAC 8-2-9 will not apply to this source.

325 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

This rule does not apply as surface coating material is applied to structural wooden fixtures not furniture or cabinetry.

Conclusion

The construction and operation of this recreational vehicle assembly plant shall be subject to the conditions of the attached proposed Registration 039-13925-00554.

Appendix A: Emissions Calculations

Summary Potental Emissions

Company Name: **Forest River, Inc. Wildcat Division**
Address City IN Zip: **57475 C.R. 3 Elkhart, Indiana**
CP: **039-13925**
Plt ID: **039-00554**
Reviewer: ERG/RB
Date: March 1, 2001

Potential emissions (tons/year)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.077	0.077	0.006	1.007	0.055	0.846
Coating	2.276	2.276			13.420	
WoodWorking	3.246	0.540				
Total	5.599	2.893	0.006	1.007	13.475	0.846

Potential emissions (lbs/hr)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.018	0.018	0.001	0.230	0.013	0.193
Coating	0.520	0.520	0.000	0.000	3.064	0.000
WoodWorking	0.741	0.123	0.000	0.000	0.000	0.000
Total	1.278	0.661	0.001	0.230	3.076	0.193

Controlled emissions (tons/year)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.077	0.077	0.006	1.007	0.055	0.846
Coating	2.276	2.276			13.420	
WoodWorking	0.093	0.015				
Total	2.446	2.368	0.006	1.007	13.475	0.846

Controlled emissions (lbs/hr)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.018	0.018	0.001	0.230	0.013	0.193
Coating	0.520	0.520	0.000	0.000	3.064	0.000
WoodWorking	0.021	0.003	0.000	0.000	0.000	0.000
Total	0.558	0.541	0.001	0.230	3.076	0.193

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Forest River, Inc. Wildcat Division**
Address City IN Zip: **57475 C.R. 3 Elkhart, Indiana**
CP: **039-13925**
Plt ID: **039-00554**
Reviewer: ERG/RB
Date: March 1, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.3	20.1

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.1	0.0	1.0	0.1	0.8

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: **Forest River, Inc. Wildcat Division**
Address City IN Zip: **57475 C.R. 3 Elkhart, Indiana**
CP: **039-13925**
Plt ID: **039-00554**
Reviewer: ERG/RB
Date: March 1, 2001

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
100-5 Cleaner	6.82	100.00%	0%	100.0%	0.0%	0.00%	0.02330	1.375	6.82	6.82	0.22	5.24	0.96	0.00	ERR	1
1010 Tube White	0.00	0.00%	0%	0.0%	0.0%	0.00%	0.18700	1.375	0.00	0.00	0.00	0.00	0.00	0.00	ERR	1
1013 Alpha Caulk Wt	7.52	7.00%	0%	7.0%	0.0%	36.00%	0.23300	1.375	0.53	0.53	0.17	4.05	0.74	0.00	1.46	1
ABS Cement	7.09	100.00%	0%	100.0%	0.0%	0.00%	0.00500	1.375	7.09	7.09	0.05	1.17	0.21	0.00	ERR	1
ABS Cleaner	6.61	100.00%	5%	95.0%	0.0%	0.00%	0.03100	1.375	6.28	6.28	0.27	6.42	1.17	0.00	ERR	1
8011 Adhesive	8.35	20.60%	20%	0.6%	20.0%	80.00%	0.03100	1.375	0.06	0.05	0.00	0.05	0.01	0.00	0.06	1
676 Spray adhesive	5.83	99.20%	20%	79.2%	20.0%	80.00%	0.07470	1.375	5.77	4.62	0.47	11.38	2.08	0.01	5.77	0.75
GeoCell 2300	7.92	35.00%	0%	35.0%	0.0%	65.00%	0.00374	1.375	2.77	2.77	0.01	0.34	0.06	0.00	4.26	1
Centari Paint	10.95	60.00%	0%	60.0%	0.0%	40.00%	0.00156	1.375	6.57	6.57	0.01	0.34	0.06	0.02	16.43	0.5
7601S Blender	9.02	67.10%	0%	67.1%	0.0%	0.00%	0.00008	1.375	6.05	6.05	0.00	0.02	0.00	0.00	ERR	0.5
MB2010 Adhesive	9.33	35.70%	0%	35.7%	0.0%	0.00%	0.00934	1.375	3.33	3.33	0.04	1.03	0.19	0.00	ERR	1
DX-33-Acrylic Clear	7.90	65.51%	0%	65.5%	0.0%	0.00%	0.00934	1.375	5.18	5.18	0.07	1.60	0.29	0.04	ERR	0.75
1315 fill and Sand Gr	7.40	100.00%	0%	100.0%	0.0%	0.00%	0.00008	1.375	7.40	7.40	0.00	0.02	0.00	0.00	ERR	1
Mineral Spirits	6.51	100.00%	0%	100.0%	0.0%	0.00%	0.00389	1.375	6.51	6.51	0.03	0.84	0.15	0.00	ERR	1
Para Sill	0.00	0.00%	0%	0.0%	0.0%	0.00%	0.10600	1.375	0.00	0.00	0.00	0.00	0.00	0.00	ERR	1
Spot/Panel Clear Coa	7.94	4.49%	0%	4.5%	0.0%	0.00%	0.00008	1.375	0.36	0.36	0.00	0.00	0.00	0.00	ERR	0.75
Spray n Go Paint	6.09	86.10%	0%	86.1%	0.0%	0.00%	0.03740	1.375	5.24	5.24	0.27	6.47	1.18	0.05	ERR	0.75
Sta Put Adhesive	6.50	80.00%	0%	80.0%	0.0%	0.00%	0.00033	1.375	5.20	5.20	0.00	0.06	0.01	0.00	ERR	0.75
Lacquer Thinner	7.19	100.00%	0.0%	100.0%	0.0%	0.00%	0.00008	1.375	7.19	7.19	0.00	0.02	0.00	0.00	ERR	100%
8034S Reducer	7.50	99.40%	0.0%	99.4%	0.0%	0.60%	0.00016	1.375	7.46	7.46	0.00	0.04	0.01	0.00	1242.50	100%
792S Repair Hardener	9.20	76.20%	0.0%	76.2%	0.0%	23.80%	0.00078	1.375	7.01	7.01	0.01	0.18	0.03	0.00	29.46	100%
Isopropanol Alcohol	6.58	100.00%	0.0%	100.0%	0.0%	20.00%	0.00008	1.375	6.58	6.58	0.00	0.02	0.00	0.00	32.90	100%
Bondo	15.00	35.00%	0.0%	35.0%	0.0%	65.00%	0.00008	1.375	5.25	5.25	0.00	0.01	0.00	0.00	8.08	100%
Carpenter Glue	9.16	0.50%	0.0%	0.5%	0.0%	0.00%	0.77800	1.375	0.05	0.05	0.05	1.18	0.21	0.00	ERR	100%
Chassis Black	7.90	22.00%	0.0%	22.0%	0.0%	0.00%	0.23300	1.375	1.74	1.74	0.56	13.36	2.44	2.16	ERR	75%
P-1208 Cleaner	6.37	100.00%	0.0%	100.0%	0.0%	0.00%	0.00389	1.375	6.37	6.37	0.03	0.82	0.15	0.00	ERR	100%
RTV Silcone	9.65	30.00%	0.0%	30.0%	0.0%	0.00%	0.18700	1.375	2.90	2.90	0.74	17.87	3.26	0.00	ERR	100%
Silicone	8.34	100.00%	60.0%	40.0%	60.0%	40.00%	0.00934	1.375	8.34	3.34	0.04	1.03	0.19	0.00	8.34	100%
State Potential Emissions			**Add worst case coating to all solvents**										**13.42**	**2.28**		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Woodworking

Company Name: **Forest River, Inc. Wildcat Division**
Address City IN Zip: **57475 C.R. 3 Elkhart, Indiana**
CP: **039-13925**
Plt ID: **039-00554**
Reviewer: ERG/RB
Date: March 1, 2001

	Tons/Year	Lbs/hr
Amount of TSP generated	3.1536	0.72
Amount of PM10 collected	0.5256	0.12
Controll Efficiency	85.00%	85.00%
Controlled PM Emissions	0.093	0.021
Controlled PM10 Emissions	0.015	0.003
Total PM Potential to Emit	3.246	0.741
Total PM10 Potential to Emit	0.540	0.123

Shaded areas represent data provided by the operator.